

# Wisconsin's Industrial Hemp Pilot Research Program Frequently Asked Questions – Updated July 25, 2018

As you probably know, we have received many questions about growing and processing industrial hemp in Wisconsin. Bear in mind that we are authorized to regulate hemp only up to the point where it's been found to comply with the 0.3 percent THC level and harvested. After that, it is an ingredient or a fiber, and comes under regulations, if any, for whatever product it's used for.

## FAQs

### Regulatory questions

#### What is industrial hemp?

Industrial hemp is the plant with the Latin species name *Cannabis sativa* L., with a delta-9-THC concentration of 0.3 percent or less in all parts of the plant when it has been dried. This is how both the federal farm bill that authorized states to create pilot research program and 2017 Wisconsin Act 100 define industrial hemp.

#### How do I apply to grow or process hemp?

To grow industrial hemp you must:

- Apply for a one-time license using the forms provided by the Department of Agriculture, Trade and Consumer Protection (department or DATCP)
- Pay a one-time license application fee (\$150 for 0-30 acres, \$5/acre for 31-199 acres, or \$1000 for 200 acres or more)
- Undergo a background check
- Provide field or greenhouse locations and GPS coordinates

You also must register with the department every year that you plan to grow hemp, including the first year that you receive your license. When you register each year, you must also submit:

- An annual registration fee of \$350
- GPS coordinates and maps of your fields
- A research plan
- A signed research agreement

To process industrial hemp you must:

- Apply for a one-time license using the forms provided by the Department of Agriculture, Trade and Consumer Protection (department or DATCP)
- Undergo a background check

You also must register with the department every year that you plan to process hemp, including the first year that you receive your license. When you register each year, you must also submit:

- An annual registration fee of \$100
- GPS coordinates and maps of your processing location
- A research plan
- A signed research agreement

**When can I apply for my license and registration?**

Licensing and registration is currently closed, and will reopen from November 1, 2018 through December 31, 2018. If you plan to grow or process industrial hemp during 2019, you should be sure to do so during that timeframe.

**How did you come up with the fees?**

The license fees are specified in s. 94.55, Wis. Stats. The law also allows DATCP to set annual registration fees that do not exceed the actual costs of administering the hemp program. We established the fees after calculating the department's costs for program administration and reviewing what other states set for fees. As most states are doing, DATCP will invoice growers the actual costs of sampling and testing, in addition to the registration fee.

**Why is a research agreement required?**

The 2014 farm bill allowed universities and state departments of agriculture to conduct industrial hemp research and pilot programs. The research agreements extend the department's research program to individual farmers, allowing them to do applied research throughout the state of Wisconsin under a variety of growing conditions.

**What do you mean by a research plan?**

After a 70-year absence from Wisconsin's agricultural landscape, industrial hemp is really a new crop here. Research topics may include planting, harvesting and processing techniques; seed varieties; nutrient requirements; markets; storage; non-chemical pest and weed control; or other topics that participants choose. Research plans will be short, submitted on forms provided by the department.

**What do I have to do with the research plan?**

You will use it as your guide to gather and record your findings. We will supply forms for reporting agronomic data and research results, so you will need to gather this data throughout the growing season and report your research findings every year. We will prepare an annual summary report of all research conducted as part of the program, so everyone can benefit from the information.

We will not register you for succeeding seasons if you have not filed your reports.

**How long does my license last?**

The pilot program license is permanent – you need to apply for it only once. But you must re-register each year you want to grow industrial hemp.

**Am I required to do anything else if I participate in the industrial hemp pilot program?**

You must allow us access to your hemp fields to inspect and sample. You should take reasonable measures to prevent theft or diversion of your industrial hemp plants and seed, and cooperate with law enforcement if necessary. Licensees who fail to pay their invoiced fees or submit their required reports for the previous growing season may have their license suspended, and will not have their registrations approved to grow in the following year.

**How do you know my crop's THC content?**

Participants must notify the department 30 days before they want to harvest. A department inspector will sample each field and variety grown and send the samples to our laboratory, or to a contracted laboratory, for analysis. The method used is called high-performance liquid chromatography, or HPLC. We will invoice you for the cost of the sampling and testing.

**What if my plants test above 0.3% THC?**

You may request a retest. We would collect another sample and send it to the laboratory again for HPLC analysis. You would pay the cost for both the resampling and retest. If you decline resampling and retesting, or if the hemp samples test high again, you would be ordered to destroy your crop, as required by state law. Wisconsin state law provides protection from criminal penalties to growers whose plants test no more than 1 percent -- up to 0.7 percentage points above the 0.3 percent THC limit. Growers who plant certified seed are protected from criminal penalties regardless of THC level.

**How does growing industrial hemp affect my FSA and/or federal crop insurance contracts or program participation?**

Federal agencies do not recognize industrial hemp as an agricultural crop consider it a controlled substance the same as marijuana, so farmers cannot get federal crop insurance for it and FSA does not record or report hemp acreage.

If you are thinking of planting industrial hemp, you should check with your local FSA service center to see if your access to federal crop support programs might be affected by participation in the industrial hemp pilot research program.

**Can I grow industrial hemp in a greenhouse?**

Yes, you can grow it indoors as long as you clearly indicate your research goals and production methods on your application. If your production schedule differs from the outdoor growing season, we may alter the THC-compliance testing schedule.

**Can I see a list of industrial hemp growers or industrial hemp processors licensed in the state?**

Pilot participants' personally identifiable information and field location data is confidential under state law. DATCP will not provide this information, although growers or processors may release it themselves.

**Do I need to notify the sheriff/local police or does DATCP do it?**

Once you register your hemp fields with us, we will share your field location and contact information with local law enforcement upon request. For this reason, it is essential that you provide accurate field location information and maps. This saves the grower from unwanted attention, and saves law enforcement time and money on unnecessary investigations. If you want to change field locations, you must amend your license, submit a license modification fee, and provide new GPS coordinates.

**Do I need to build a fence or put up signs around my field?**

No. If you are concerned about trespassing or vandalism if your crop is mistaken for marijuana, you may post signs identifying it as industrial hemp, but it is not required.

Also, if your industrial hemp plot is less than 1 acre, you may want to post signage to help local law enforcement identify it as part of the pilot program.

**Can I grow industrial hemp near a school, a town, or a major road? Are there restrictions on where I can grow it?**

The department will not restrict industrial hemp production locations, but you may be subject to township or city zoning rules. We do not track these local rules. You are responsible for knowing and complying with them.

**Will I need a license to process industrial hemp?**

You will need a one-time license and annual registration to process industrial hemp in Wisconsin. Processing industrial hemp includes transporting, warehousing and converting the industrial hemp to a marketable form. If you will only be processing industrial hemp you grow—and won't be accepting it from other licensed growers—you will not need a processor license.

*Please note that we do not have agronomic expertise. Our role is to set up the pilot research program and regulate it. Learning how to grow hemp in Wisconsin is part of the research. However, some information is available from other states that have already started their pilot programs, from Canada where industrial hemp is grown as a commodity crop, and from organizations advocating industrial hemp as a crop. We have used that information to answer these basic common questions, but encourage you to go directly to the sources for details.*

**Agronomic Questions****When do you plant hemp?**

The ideal seeding time for outdoor industrial hemp production in Wisconsin is from mid-May to mid-June. Soil temperatures should be at least 45-50 degrees Fahrenheit. Industrial hemp likes warm soil. Cold soils and pathogens may kill seedlings if you plant too early.

**How many pounds of seed per acre do you plant?**

The general recommendation is 20-40 pounds per acre for grain production, and 40-60 pounds per acre for fiber production, but the optimal seeding rate for your field will depend on the seed variety, seed purity and germ, local

conditions and other factors. The [Canadian Hemp Trade Alliance's \(CHTA\) Hemp Production eGuide](#) has excellent seeding information.

#### **Can you plant hemp on hemp? How does it fit into a crop rotation?**

According to the CHTA, "Hemp fits in with typical crop rotation systems and with typical equipment that would already be found in a grain production system." Please visit the [CHTA's Hemp Production eGuide](#) for much more information on hemp agronomy.

#### **How do you sow hemp seed? What equipment and at what depth? Can you broadcast or do you have to drill?**

Most conventional drills and seeders will work for hemp. Use lower air volumes to avoid seed cracking, and plant ½-1 inch maximum into a firm seedbed. Avoid soil compaction and do not seed before a large rain event. Please visit the [CHTA's Hemp Production eGuide](#) for much more information on hemp planting.

#### **Can I grow hemp organically?**

The National Organic Program (NOP) allows organic certification of hemp grain and fiber. The national organization has indicated it may not certify cannabinoid extracts produced from hemp, but each local certifier may handle this matter differently. Please visit [NOP's website](#) or speak with your local organic certifier for more information.

There are no pesticides registered for use on industrial hemp. You may use only 25(b) minimum risk pesticides, which are exempt from federal EPA registration. However, those products must be registered in Wisconsin. A list of pesticide products registered in Wisconsin can be found [here](#). Check with your local certifier to see which of these may be used on organic-certified industrial hemp.

#### **Do you need to fertilize industrial hemp?**

Yes, hemp has similar nutrient needs to corn, and especially requires added nitrogen. General guidelines for fertilizer rates can be found on the [CHTA's Hemp Production eGuide](#).

#### **How do you harvest it?**

Hemp varieties grown for grain and fiber is generally done by straight combining; however, swathing is also used. Hemp has long fibers and can get entangled in harvesting equipment. Other hemp varieties may require different harvesting techniques, including hand harvesting. Do your research and be patient while harvesting industrial hemp. Please visit the [CHTA's Hemp Production eGuide](#) for much more information on hemp harvesting.

#### **When do you harvest it?**

Generally, crop maturity is 90-120 days after planting, depending on the variety and local climatic conditions. Industrial hemp seed is harvested when about 75 percent of the seeds are ripe and starting to shatter. High winds can accelerate shattering. Bird predation can also be a major problem. The CHTA recommends harvesting at 18-20 percent moisture, and immediately starting the drying process. Dry grain to 8-10 percent moisture for storage.

#### **What kind of yield can I expect?**

Yields vary widely depending on variety, local climatic conditions, cultivation method, and grower experience.

For grain, new growers have reported yields of 250-700 pounds/acre. More experienced growers report 800-1,800+ pounds/acre.

The average yield for dual purpose crops, harvested for both grain and fiber, is ¾-2 tons/acre. For hemp produced solely for fiber, the average yield is 3-5 tons per acre.

#### **How deep are the roots?**

The CHTA says that hemp roots are capable of penetrating up to 24 inches into the soil to recover nutrients that may be lost to many other crops. [CHTA Hemp Production eGuide](#)

#### **Do deer eat hemp?**

Minnesota has not received reports of deer causing damage to hemp fields, but there are a few documented cases in Oregon of deer predation destroying entire fields.

## Seed Questions

### Where can I buy hemp seed?

For 2018, DATCP was not involved in seed acquisition. Certified seed may be available from multiple domestic or international sources. You can order seed after you receive your license and submit your annual registration form and fee. You must transport and store seeds in a secure manner. We have applied for a DEA seed importer registration and may help facilitate seed imports in 2019, but that is uncertain at this time.

### Can I save seed to plant the following year?

Seed harvested from a pilot project typically cannot be saved or sold for propagation, except under the Wisconsin Crop Improvement Association's seed certification program. Most seed distributors will not allow purchasers to save seed or sell it to other users.

### Do I need a seed license to sell hemp seed in Wisconsin?

Yes. The Department of Agriculture, Trade and Consumer Protection licenses seed labelers. The labeling requirement helps assure that consumers receive good quality seed that germinates and does not contain weed seeds.

A seed labeler is any business or person whose name appears on a seed label, or who opens containers of agricultural, lawn or vegetable seed to sell all or part of it. Labels must include information about the percentages of different kinds of seeds in the package, germination, and treatment, inoculation or coating. Complete labeling requirements are listed in Wisconsin Administrative Code ATPC [20](#).

You do not need a seed label license if you sell:

- Seed grown and sold on your own farm
- Seed in unopened bags or containers labeled by a licensed seed labeler

Please visit the [Wisconsin Seed Program](#) for more information.

### Can I breed a new variety of hemp for Wisconsin?

Pilot program participants wishing to breed a new hemp variety must apply for a research authorization from the department. Breeding is typically done by breeders or plant geneticists in an academic setting, and may have additional legal requirements.

## Marketing Questions

### Can I sell my unprocessed hemp in other states?

The Wisconsin pilot program covers hemp cultivation, processing, and marketing only **within** the state of Wisconsin. Industrial hemp pilot programs in other states may allow their processors to import unprocessed hemp from Wisconsin, if you are a licensed grower under our program. You are responsible for understanding federal law and other states' laws, or for consulting an attorney on these matters.

### Can I process hemp imported from growers in other states?

Licensed processors in Wisconsin may accept unprocessed industrial hemp from licensed growers who are part of any state's industrial hemp pilot program. Unprocessed hemp must be accompanied by documentation provided by an industrial hemp pilot program that demonstrates that the hemp has tested at or below 0.3 percent THC.

### Does DATCP have any grants for growing hemp?

No, but our Division of Agricultural Development may provide some business development assistance. Other agencies or organizations may offer grants or other financial assistance. If you accept grants, there may be additional reporting and other requirements beyond those you must meet to participate in the pilot research program. This does not relieve you of any of your responsibilities within the pilot program.

### Do I have to be a Wisconsin resident to get a DATCP industrial hemp license?

No, but the land where you grow industrial hemp or the location where you process it must be in Wisconsin.

**Can I grow hemp under contract with someone else?**

Yes, but each individual grower must still be licensed, register and sign a research agreement, and meet the research plan and reporting requirements. The person you are growing for must be a licensed processor.

**Do I have to own the land I want to grow hemp on?**

No. You can grow hemp on rented land as long as the landowner consents, and understands that we will perform routine inspections and plant sampling in the fields. If you plant hemp on rented land, you must provide us with the landowner's name and contact information.

**How much can I receive when I sell my hemp?**

Prices for hemp grain are fluctuating widely in the U.S. because the industry is in a very early stage and constantly developing. You should research available markets and secure a contract before you plant.

**What is the cost per acre of growing hemp?**

The Alberta Agriculture and Forestry Department reported an average total production cost at \$409 (Canadian dollars) per acre, with an average grain yield of 1,074 pounds per acre – or 38 cents per pound of hemp seed produced.

In Minnesota, hemp seed prices have varied widely, depending on variety and source. Imported seed costs more than domestic seed because of additional shipping and customs fees. You may also need to buy or rent harvesting equipment. In 2016, hemp producers in Minnesota reported costs per acre of \$970-\$2,500. In 2017, initial reports indicate production costs of \$300-\$600 per acre. This does not include costs of land.

**Who will buy my hemp if I grow it?**

The U.S. hemp market is limited and constantly in flux for many reasons. As in other states, Wisconsin will have to develop processing facilities. Growers are responsible for finding markets. To learn more about marketing opportunities, we encourage you to contact a hemp trade group such as the Hemp Industries Association or the National Hemp Association.

**What if I can't or don't want to sell my hemp at the end of the growing season?**

If you are unwilling or unable to sell your industrial hemp at the end of the growing season, you have several options. You can burn it, plow it under, or compost it. Because there are no pesticides labeled for use on hemp, you cannot use an herbicide to kill it. If it has tested at 0.3% THC or lower, you may bale it and store it on your farm. Your year-end report to DATCP must include the final disposition of your industrial hemp crop.

**Can I export hemp products to other countries?**

Yes, certain hemp products may be exported to other countries, including processed hemp, grain, seed, and fiber. Export requirements vary by product and destination. Please contact our [phytosanitary certificate program](#) for more information.

**What about cannabinoids, like CBD?**

Cannabinoids, such as cannabidiol (CBD), are a group of chemicals concentrated in the female flower of the cannabis plant. While they are chemically similar to THC, they do not have the psychoactive effects of THC. It is the licensed processor's responsibility to ensure that any CBD extraction or the production of CBD-containing substances complies with all laws and regulations, including any distribution to be conducted as part of marketing research.

## **Feed Questions**

**Can I feed hemp to my livestock?**

Hemp is not currently an approved ingredient for commercial animal feed, so you cannot sell it as animal feed. Growers are advised that any research project that involves feeding hemp products to their own animals may result in regulatory restrictions in the sale of products (meat, milk, eggs, etc.) from these animals.

**Can I make pet food with hemp?**

No. Wisconsin's commercial feed program and U.S. Food and Drug Administration regulations are similar for pet food and livestock feed. Hemp is not an approved ingredient for commercial pet food. Selling pet food with hemp ingredients in Wisconsin would result in the products being withdrawn from distribution. However, you may include hemp in pet food that you make for your own pets' consumption. You should consult your veterinarian before doing so.